

# **Fort McCoy Safety Industrial Operations Program**

Ladder Safety

June 2002

# Ladder Safety

## OSHA 29 CFR 1910.25-27

- Ladder Selection
- Ladder Inspection
- Ladder Set-up
- Ladders Safety
- Ladder Maintenance and Storage



# Ladder Selection-Material

- **Fiberglass:** Nonconductive, which makes it a good choice when working around electricity. It is also corrosion resistant and ideal for outdoor use.
- **Aluminum:** Lightweight, but not for use when contact with electricity is possible. It is easy to maneuver when frequent handling is required.
- **Wood:** Nonconductive, which makes it a good choice for working around electricity. It is an economical choice for heavy maintenance and construction.

# Ladder Selection-Type & Capacity

<b><i>Type</i></b>	<b><i>Capacity*</i></b>	<b><i>Use</i></b>
IA	300 lbs	Extra heavy-duty industrial contractor
I	250 lbs	Heavy-duty industrial contractor
II	225 lbs	Medium-duty commercial
III	200 lbs	Light-duty household

\* Total load capacity includes combined weight of user, tools and any other material on ladders

# Ladder Selection-Size

- Stepladders – No more than 20 feet high

- Ladder Size      Maximum Standing Height

4 feet      2 feet

6 feet      4 feet

8 feet      6 feet

10 feet      8 feet

12 feet      10 feet

Avoid standing on top two (2) steps



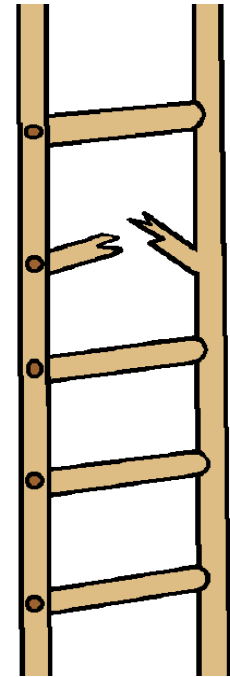
# Ladder Selection-Size

- Extension Ladders - No more than 60 feet
  - Normal Length      Overlap required
  - Up to and including 36      3 feet
  - Over 36, up to and including 48      4 feet
  - Over 48, up to 60      5 feet

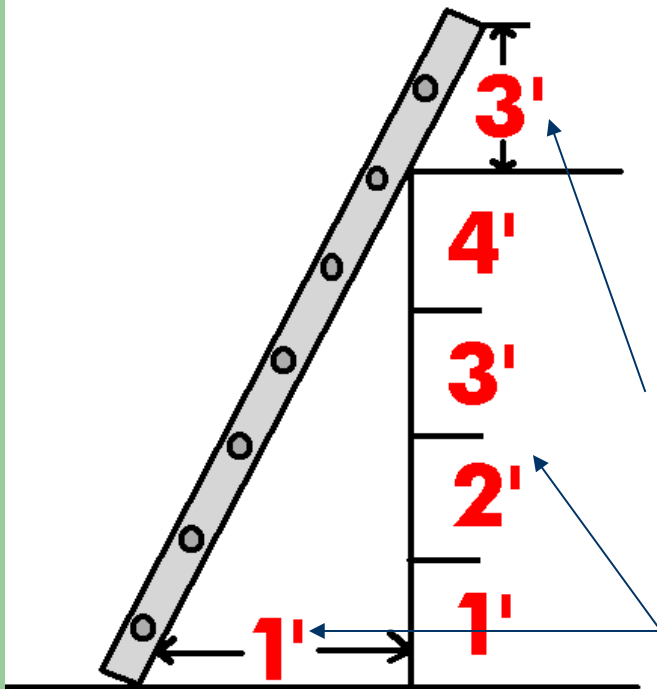
Maximum working height – Avoid using the top four (4) rungs

# Ladder Inspection

- Rungs must be intact and clean, especially free from grease and oil.
- Make sure there are no splinters or sharp edges.
- See that metal ladders are not dented or bent.
- Make sure the hinge spreader works properly.
- All support braces and bolts must be secure.
- Ensure rope is not frayed or badly worn on extension ladders.
- Safety feet and auxiliary devices functional.



# Ladder Set-Up

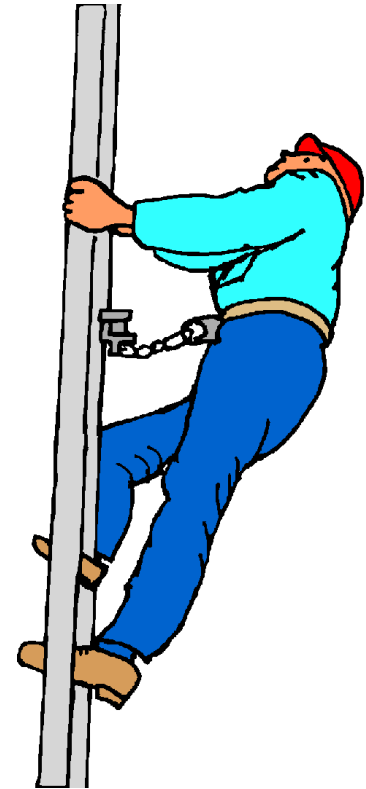


- Erect on solid level surface.
- Never place in front of door unless door is secured.
- Stepladder – ensure the spreader is locked.
- Tie-off (lash) top and bottom if no one is available to hold to prevent slipping.
- Extension – extend ladder 3 feet above support if used to access roof or other elevated surfaces.
- Extension – use the  $\frac{1}{4}$  rule (for every 4 feet in height, move 1 foot at base).



# Ladder Safety

- Always have three points of contact when climbing (two feet/one hand or two hand/one foot).
- A good rule of thumb is never let one's belt buckle outside the uprights-always face the ladder.
- Wear slip resistant type shoes with heels.
- Do not carry objects up and down the ladder. Raise and lower needed tools and materials with a rope or bucket.
- Use fall-protection when required.



# Ladder Maintenance and Storage

- It's best to hang a ladder horizontally on wall hooks in a dry place not subject to temperature extremes and direct sunlight.
- Metal bearings of locks, wheels, pulleys, etc., shall be frequently lubricated.
- Have repair work done only by a competent repair shop. If there is major damage – discard.